Training dogs to differentiate *Pseudomonas aeruginosa* from other cystic fibrosis bacterial pathogens: not to be sniffed at?

Jane C. Davies[1,2], Eric Alton[1,2], Ameze Simbo[1], Ronan Murphy[1], Ishani Seth[1], Kate Williams[3], Mark Somerville[3], Libby Jolly[3], Steve Morant[3] and Claire Guest[3]

Affiliations: [1]National Heart and Lung Institute, Imperial College, London, UK. [2]Royal Brompton and Harefield NHS Foundation Trust, London. [3]Medical Detection Dogs, Milton Keynes, UK.

Correspondence: Jane C. Davies, National Heart and Lung Institute, Imperial College London, 1B Manresa Rd, London SW3 6LR, UK. E-mail: j.c.davies@imperial.ac.uk

@ERSpublications
Detection dogs can be trained to distinguish the major cystic fibrosis pathogen, *P. aeruginosa*, from a range of organisms. High sensitivity/specificity support the harnessing of this skill to detection in clinical airway samples. http://bit.ly/31GHl0Y

Cite this article as: Davies JC, Alton E, Simbo A, *et al*. Training dogs to differentiate *Pseudomonas aeruginosa* from other cystic fibrosis bacterial pathogens: not to be sniffed at?. *Eur Respir J* 2019; 54: 1900970 [https://doi.org/10.1183/13993003.00970-2019].

To the Editor:

The major cause of lung damage in cystic fibrosis (CF) is infection with bacterial pathogens, the most prevalent of which is *Pseudomonas aeruginosa*, chronically infecting ~60% patients by adolescence/adulthood (www.cysticfibrosis.org.uk/news/registry-report-2017). *P. aeruginosa* may be successfully eradicated, but frequently recurs and establishes biofilms resistant to antibiotics/host defences [1]. Chronic *P. aeruginosa* is closely linked with pulmonary exacerbation frequency, faster lung function decline and earlier mortality [2]. The huge antibiotic burden imposed upon patients and the resulting bacterial resistance, allergies and toxicities compound the detrimental impact of the infection itself. Chronic *P. aeruginosa* should be avoided if at all possible; early detection and rapid treatment may be crucial in achieving this.